FT5X

Installation And User Manual

1. OVERVIEW

1.1 Product Features

- Supports dual-mode voice access (Mobile network GSM and Telecom PSTN).
- GSM Fax function
- GSM data function
- Supports traditional PBX access
- Dynamic echo cancellations to ensure the perfect voice quality
- Off-power bypass functions (when power is off, system switches to PSTN network automatically)
- Modem mode (Access the Internet by GPRS through the PC serial port)
- Supports the phone book stored in the SIM card or in the terminal
- Intelligent routing (Able to set up dialling regulation to route voice or fax intelligently)
- Setup by Keyboard prompt line for convenient operation.
- Incoming caller display function
- Auto-dialing function
- Internal calling divert function
- Real time displaying of wireless network signal power
- Support POS connection (depend on the networks)
- Software upgrade

1.2 Technical Specification

Frequency Bands

- EGSM 900,GSM1800MHz

Transmission Power

- EGSM 900 Class4 (2W Peak)
- GSM 1800 Class1 (1W Peak)

Frequency Range

- EGSM 900 890~915 MHz 935~960 MHz
- GSM 1800 1710~1785 MHz 1805~1880 MHz

Power Consumption

- Average power consumption < 5W

Power Supply

- Output DC12V，1000mA
- Input 100~240V AC; 50~60Hz

Battery backup

- Lithium 3.7v/1700mAh
- Standby Time: 12-18 hours, depend on the Networks (when use battery)
- Airtime：2-3 hours, depend on the Networks (when use battery)
- Charging Time: 12 hours for the first time, 8 hours thereafter.

Port interface

- RJ11: Fax and Phone port (2RJ11), PSTN port (1RJ11)
- RS232: DB9 port
- GSM Antenna: TNC-female (50Ω)
- SIM card: 3V SIM card

Phone port

- Impedance： 270Ω+(750Ω||150nF)（default）
- Open circuit voltage (OCV)：50V（on-hook）
- Feed current：25mA (off-hook)
- Ringing Load：Supports integrating 3 phones （3REN）
- Provides polarity reversal

Working Environment

- Operating temperature：0℃~45℃
- Operating humidity： 20%~75%
- Storage temperature: -20℃~60℃
- Storage Humidity： 5%~95%`

Dimensions:

- Length×Width×Height：20cm×15cm×4cm
- Weight: 0.5kg

1.3 Safety

1.3.1 Safety using this product

1、 Please avoid using wireless telephone and fax functions of this product in areas where wireless transmission equipment is restricted (such as hospitals, health care facilities and on board aircraft).

2、Please avoid using wireless telephone and fax functions of this product in gas stations, bunkers and places of chemical storage.

3、Please avoid using wireless telephone and fax functions of this product in chemical plants

or any other places with hazard of explosion (such as gas leakage site).

4、Please avoid using this product on any metal surface that might weaken power of received signal

5、Please avoid using PSTN network during thunderstorm, or it might cause remote electric shock.

6、 Please avoid using this product directly under sunshine too long.

1.3.2 **Battery operation**

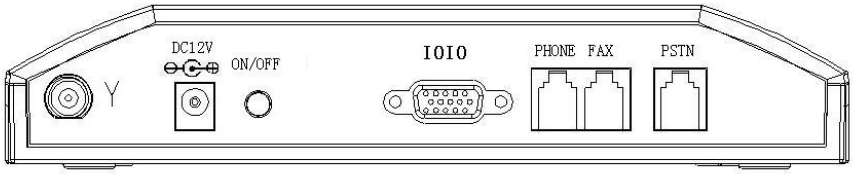
1、Do not throw battery into water or fire! Battery would be ineffective when thrown into water and possible explosion might be caused when thrown into fire.

2、Do not jointing anything onto battery! Jointing might damage battery to cause security malfunction.

3、Please dispose the useless battery in accordance with local rules and laws.

2. INSTALLATION INSTRUCTION

2.1 Interface Description



FT5X Back plane

FT5X Back plane interface description:

Y …… Antenna port

DC 12V……Power supply

ON/OFF…… Power switch

IOIO …… RS232 Serial Port

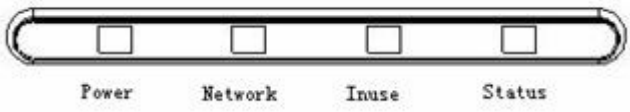
PHONE ……Phone port, connect to the regular phone

FAX…… FAX port, connect to the regular fax machine

PSTN…… External line port，connect to the external phone line

⚠ Caution: Do NOT plug external line into Telephone socket, or it may cause device damage.

2.2 Indicators



Indicators

There are 4 indicators on the front panel of fixed wireless terminal, functioning as follows:

Slow flash defines: Flash once per second to indicate

Quick flash defines：Flash 10 times per second to indicate

Dark defines：Indicating device not powered on or starting up. The STATUS indicator is still OFF within 15 seconds when turn on the device, and then the indicator becomes slowly flashing.

Indicators instruction

1、 **Power：Power supply indicator; two color indicator**

1） Green：external power supply；

2） Red：battery supply；

3） Dark：no power supply；

2、 **Network：Network indicator；two color indicator；**

1） Green Slow Flash：searching network；

2） Green Fast Flash：voice SMS(but don't support voice mail)；

3） Green：Connect to network，strong signal；

4） Red：connect to network，weak signal；

5） Dark：network registration failed

3、 **Inuse：phone/fax/data indicator；two color indicator；**

1） Green：Indicating the status of talking or hanging up；

2） Red：Indicating the status of Fax function；

3） Dark：Indicating the status of Free；

4） Green Fast Flash：Indicating a call in and ringing

5） Red Fast Flash：Indicating a fax in and ringing

4、 **Status：status indicator；two color indicator；**

1） Dark：normal operation;

2） Green：general error，Error Code by both Network and Inuse indicators; Red defined as "1", Dark defined as "0".
00: no SIM card
11: input PIN code

3） Red：lock device、lock SIM card、lock the service provider、lock cell; Error Code by Network and Inuse indicators; Red defined as "1", Dark defined as "0".
11: lock cell
10: lock the service provider
01: PIN code error
00: IMSI error

4） Red Fast Flash：serious error; Error Code by Network and Inuse indicators; Red defined as "1", Dark defined as "0"
00: need PUK code;
01: GSM baud rate error
10: other errors

2.3 Hardware Installation Steps

1、 Unscrew the SIM cover on the underside of the FT5X, remove the cover, insert a SIM and then reattach the SIM cover. Replace the screw.

2、 Connect a regular telephone into the socket marked 'Phone' indicated on FT5X back plane.

3、 Connect a G3 Fax machine into the socket marked 'Fax' indicated on FT5X back plane.

Caution: Do NOT plug external line into Telephone socket, or it may cause device damage.

4、 Connect a telephone line to the socket marked 'PSTN" on FT5X back plane.

5、 Connect and screw up firmly the included antenna onto SMA terminator marked "Y" indicated on FT5X back plane.

6、 Make sure power switch on the back plane is in OFF position. Afterwards, plug one end of included power adapter into power socket, and plug the other end into "DC12V" power interface indicated on the back plane.

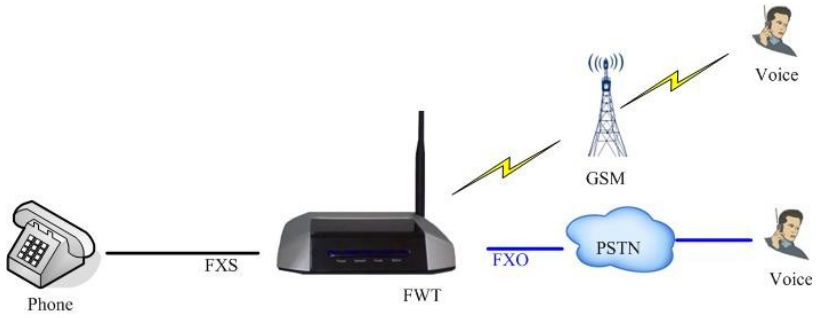
7、 Switch on power. when the Status indicator turns dark and the Network indicator lights continuously. The system goes into normal. network registration succeed. The device is ready to use.

8、 Shut down the device. Press the power switch 3 to 5 seconds; release the power switch, the Power and Network indicators turn off immediately.

3. Applications

3.1 Voice mode application

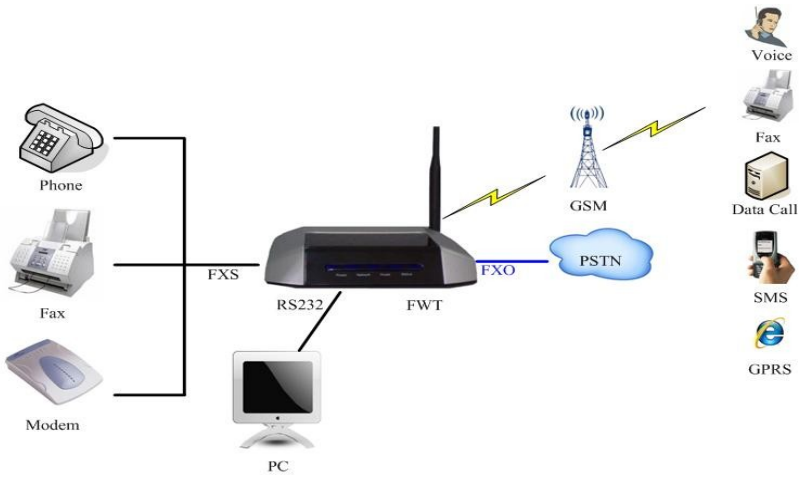
The Voice Mode. Connecting regular telephones to Phone port; PSTN port connects with the entry line. Under normal circumstances the users make a telephone call incoming or outgoing through the GSM network. When Power-down. the device Automatically switch to PSTN network, emergency calls can still achieve the incoming or outgoing. Application solution is proposed as following:



Voice mode application

3.2 Voice/FAX mode application

FT5X connects regular telephone, FAX, Modem via phone and fax ports. The PSTN port connects with entry line. The Ethernet port connects with Ethernet that make the device become one wireless modem. In normal situation, user can call in and call out while telephone routes GSM network. When power is off, the device switches to PSTN network automatically to realize emergency calling in and out. Application solution is proposed as following:



Voice/FAX mode application

3.3 Pos connection application

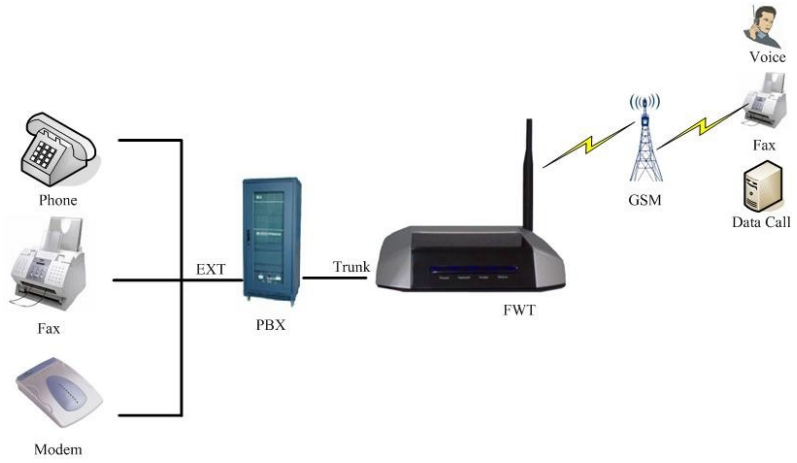
FT5X supports traditional POS connection(depend on the networks). When connecting to the FT5X'RJ11 ports, the traditional POS can be used as usual. FT5X supports GSM CSD(Circuit

Switched data) uplink. According to this communication plan, people do not need any change when using the traditional POS, and allocate numbers remain the same. Application plane is show as bellow:

Pos connection application

3.4 PBX relay mode application

the phone port connects with PBX exterior interface (TRUNK port), the exterior line port connects with the entry line. Under normal situation, the PBX extension may realize call in or out with the help of access terminal via GSM network. When power is off, device automatically switches to PSTN network in order to maintain emergency calling in or out. Application plane is show as bellow:



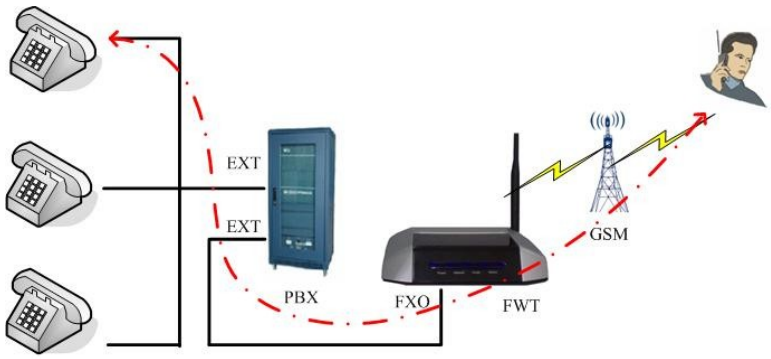
PBX relay mode application

3.5 PBX extension access mode application

This mode differ from the classic PBX rely access, this mode make the device connect with any extension to realize the PBX extension call in or call out via GSM network. This mode will make the PBX access more flexible and convenient. Moreover this device can be installed at anyplace where the extension can be installed and easy to install without entering the PBX control room. If the user wishes to extend the fully loaded PBX relay lines or manage the fixed relay line and

wireless relay line separately, this mode is a best choice.

The device's external line socket connects with PBX internal interface (EXT ports). The external line socket connects with the internal interface (EXT ports) or any extension. The PBX extension can call the extension number of access terminal and then realize the voice call in and call out through the access terminal that access the GSM/GPRS. Application plan B is show as follows:



PBX extension access mode application

4. Operating Instruction

4.1 Telephone Function

4.1.1 Making a phone call

1. Off-hook：Pick up the handset; you will hear a dialing tone.
2. Dial：Dial the phone number, the system will send out your dialed number automatically.
3. Conversation：When recipient picks up handset at the other end, voice communication is established.
4. Clear：Clear after hanging up.

4.1.2 Receiving a phone call

When phone bell is ringing, Inuse indicator is blinking Green; the user can pick up handset and start talking.

4.1.3 Call Waiting and Three Parties Conference Function

This device support GSM Call Waiting and three parties conference function ***Note: require starting this service on SIM card. The use guide as follows：***

During the call, if there is the third-party incoming, in the wireless access terminals in the external phone handset will hear "du, du" of the Voice.

- If the speaker wants to ignore this incoming call, do not do any operation.
- If the speaker wants to reject this incoming call, press R button and then press 0.
- If the speaker want to end the current conversation and start the new conversation, press R button and then press 1, or hang up the phone to end current conversation, the phone will be ringing and pick up the phone for new incoming call.
- If the speaker wants to hold the current conversation and accept the new call in, press R button and then press 2. The speaker can also switch the talk objects by press 2.
- In the process of conference, the user can press the button R and then # to hold the current call. Dial the new number after hearing the dial tone.
- When the speaker talks with the new call, the former conversation will still be held. If the speaker wants to hold the three parties conference, press button R and then 3 to add the current conversation into the holding conversation. This realizes the teleconference.
- During the teleconference, the speaker can press button R and then #, hold the current call. And dial the new number after hearing the dial tone.
- Hang up the wireless access terminal to end the conference.

Caution: Pressing the hook has the simulative effect in case some telephones have no button R.

4.1.4 Call Divert Function

Call divert means that the system diverts the calls from PSTN and GSM. The device needs to have a telephone line connected to the PSTN port in order to enable the call divert function.

There are two modes of the call divert：

A. Diverted from PSTN to GSM （Set by keypad command），supporting two modes of the call divert：

   i. Call forwarding when No Reply. When there is a PSTN call in，the phone begins to ring（Set the ring frequency by keyboard command）. If user does not pick up the phone, the system will call the appointed number through GSM and connect PSTN with the voice channel of GSM. When the call is put through, the PSTN caller and GSM receiver can talk with each other.

   ii. Unconditional Divert. Call the appointed number through the GSM when there is a PSTN call in.

B. Call diversion from GSM to PSTN （Set by keypad command），supports only one divert mode：

   i. Unconditional Divert. When there is a GSM call in，the device will call the appointed number through the PSTN line（Set the number by keypad command）.

NOTE: Refer to Section 4.4.3 For the Call Divert Commands

Caution:

1. ***The call diversion function can decrease the call charge when the user is out of the office.***
2. ***After launching the call diversion, the phone port maybe cannot receive the call. If there is no response in terminal when pick up the phone and no prompt tone in the handset, it indicate that the system is in the condition of processing the call diversion. The user should cancel this function in time when user does not need this function in order to ensure the common using.***

4.2 Fax function

4.2.1 Sending a fax

User can send a fax by attaching a regular G3 Analogue fax machine to the Fax port on the back panel of the FT5X unit.

The device supports two fax sending mode: synchronous mode and asynchronous mode. the user can order their own by keyboard configuration

4.2.2 Receiving a fax

User can receive a fax by attaching a regular G3 Analogue fax machine to the Fax port on the back panel of the FT5X unit.

The device supports two fax receiving mode: synchronous mode and asynchronous mode. the user can order their own by keyboard configuration

.

Caution: FT5X does NOT support switch among GSM voice/Fax. This function requires GSM network supporting TS61 (allowing user to use voice and fax functions in one call). As a result, when sending a fax, please press START key immediately after you complete dialing numbers; When receiving faxes, please set fax machine to auto-receiving fax mode.

4.3 Data Function

4.3.1 POS function

When the traditional POS connected to the FT5X, through the RJ11 ports (phone port and fax port) you should make sure the number the traditional POS dialed out is data number.

1. the number dialed out is data number, use the traditional POS as usual.

2. when you are not sure the dialing number through the traditional POS whether it is the data number. Just add the prefix ***02*** before the dialed number to ensure the call is data call.

4.3.2 Modem function

The FT5X has two work modes：Common Mode and Modem Mode. These two modes cannot exist simultaneity.

Common Mode：The wireless access terminal can provide all the function except the GPRS under the Common Mode.

Modem Mode：The data service provided through the serial port of the wireless Voice/Data/Fax access terminal by using peripheral equipments in order to provide the GPRS application.

Establishing the Modem Mode：

1. When the auto-switch mode configured by the user (refer to the below the keyboard setup command), the PC serial port needs to be connected to the IOIO port in the wireless access terminal. Open the serial port in PC, and then the device will be auto-switched to the Modem mode.

2. Under the Modem Mode, the user can control the GSM/GPRS mode through the serial port directly. And user can apply the software in PC to realize the GPRS, DATA, FAX, SMS function on the GSM.

3. Using the device under the Modem Mode

a) Under the auto-switch mode（Set #*83*1# ），when there is the incoming call on the GSM, the user can configure the mode as "Switch the mode while ringing" or " Switch after picking up the phone".

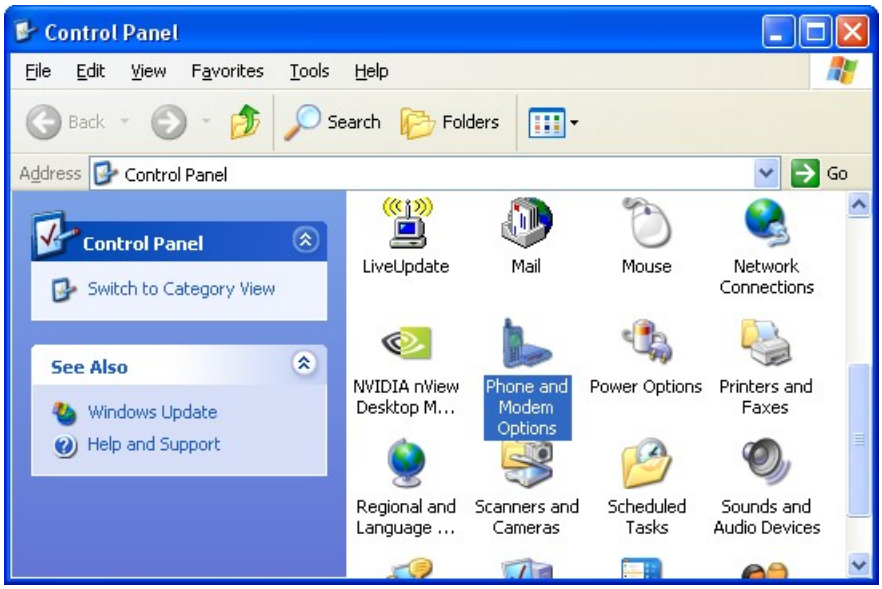
b) Under the restricted Modem mode (Set #*83*2#)， the device wont be switched to the Common Mode when calls income.

Note：Above keyboard configuration commands are setup with the common phone. Please refer to "4.4 keyboard configuration command" for the detailed configuration.

To set up your PC to connect to the FT5X unit via the serial port follow the following instructions:

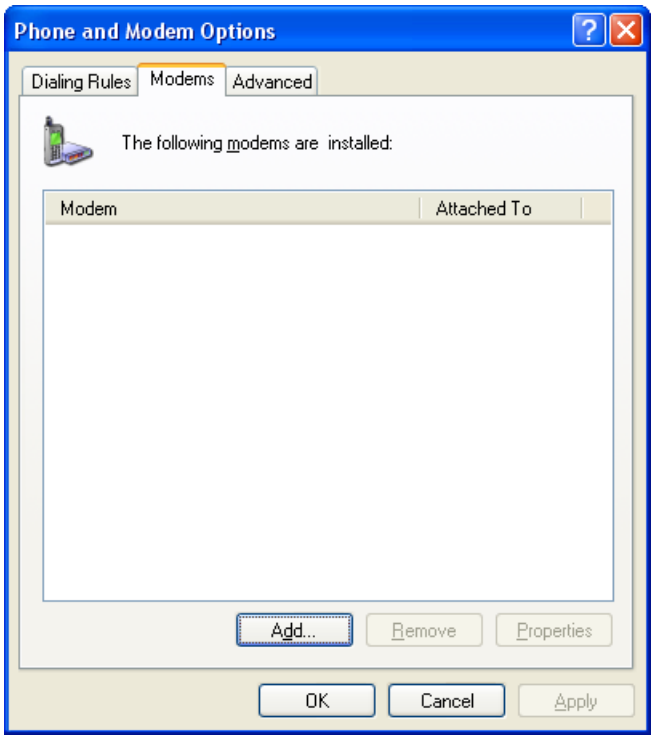
4.3.2.1 Installing the Modem

From the Start Menu, click *Control Panel*

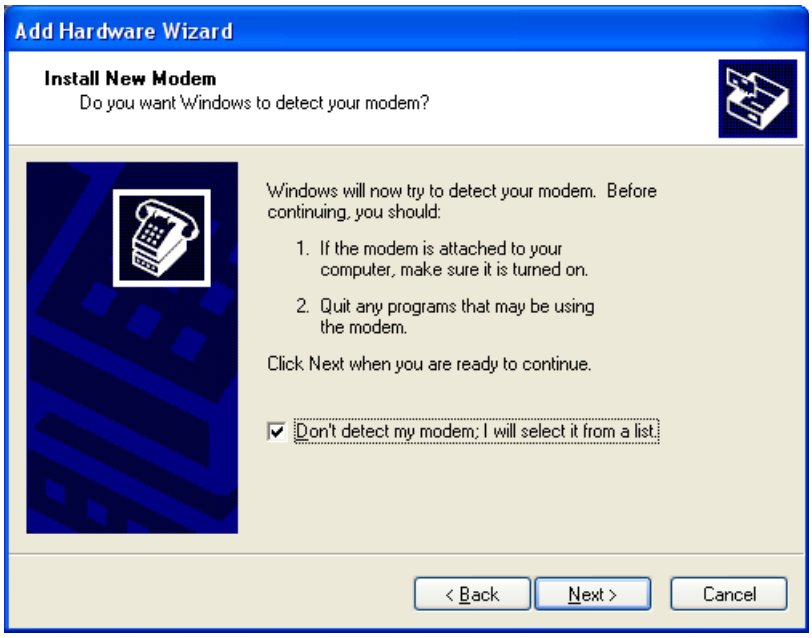


Note: If the screen displayed differs to that shown here click *Switch to Classic View*

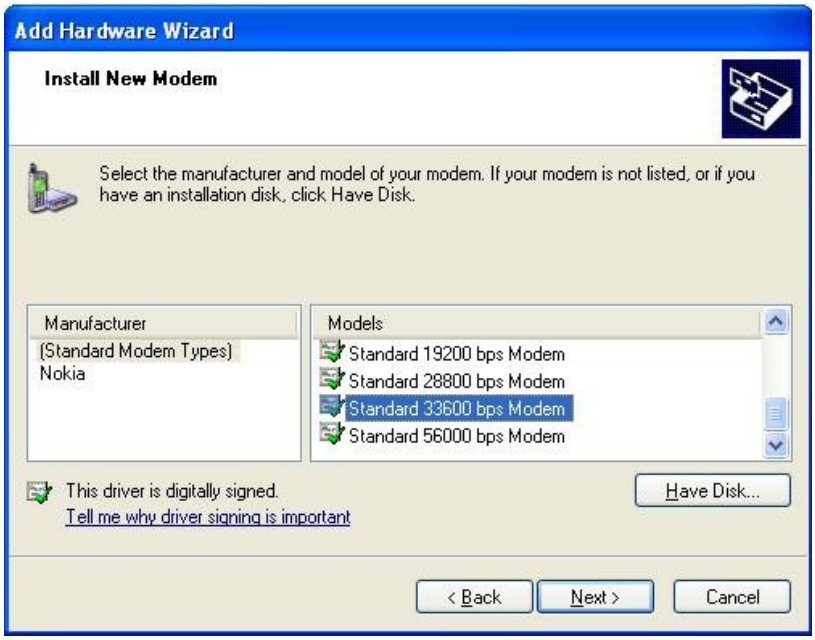
Double click *Phone and Modem Options*



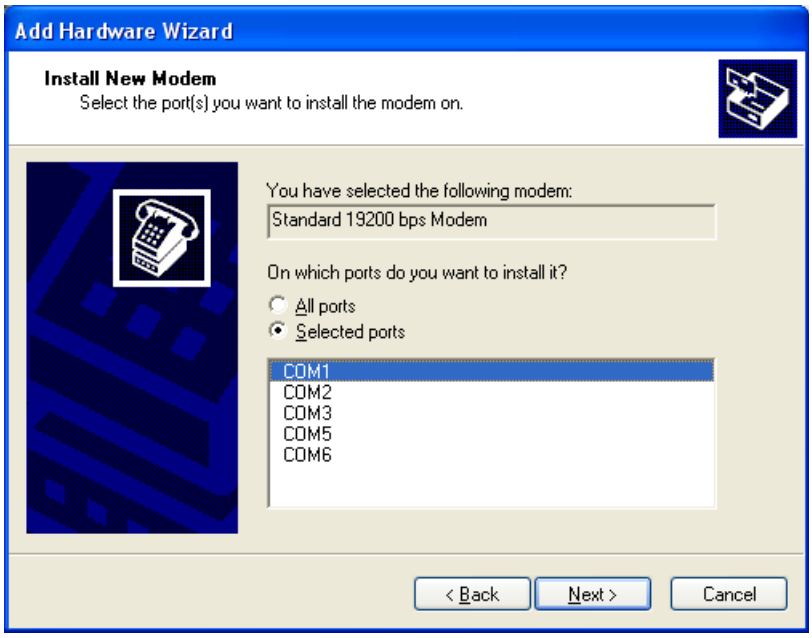
Select the Modems Tab
Click *Add…*


Add Hardware Wizard
Install New Modem
Do you want Windows to detect your modem?
Windows will now try to detect your modem. Before continuing, you should:
1. If the modem is attached to your computer, make sure it is turned on.
2. Quit any programs that may be using the modem.
Click Next when you are ready to continue.
Don't detect my modem; I will select it from a list.
< Back
Next >
Cancel

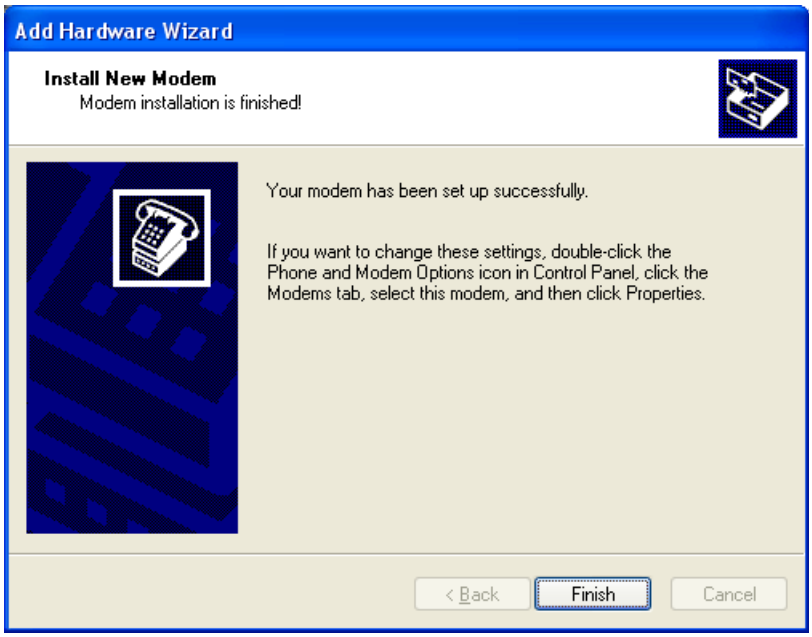
Select *Don't detect my modem, I will select it from a list*
Click *Next*


Add Hardware Wizard
Install New Modem
Select the manufacturer and model of your modem. If your modem is not listed, or if you have an installation disk, click Have Disk.
Manufacturer
(Standard Modem Types)
Nokia
Models
Standard 19200 bps Modem
Standard 28800 bps Modem
Standard 33600 bps Modem
Standard 56000 bps Modem
This driver is digitally signed.
Tell me why driver signing is important
Have Disk...
< Back
Next >
Cancel

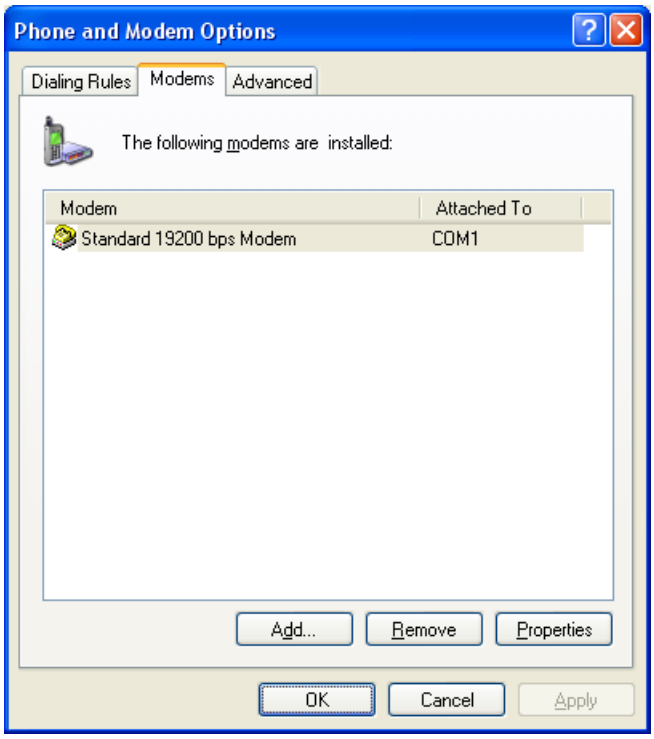
Ensure that *Standard Modem Types* is selected on the left and click on *Standard 33600 bps Modem* on the right
Click *Next*



Select the serial port that the FT5X is attached to and click *Next*


Add Hardware Wizard
Install New Modem
Modem installation is finished!
Your modem has been set up successfully.
If you want to change these settings, double-click the Phone and Modem Options icon in Control Panel, click the Modems tab, select this modem, and then click Properties.
< Back
Finish
Cancel

Click *Finish*



Click *OK*

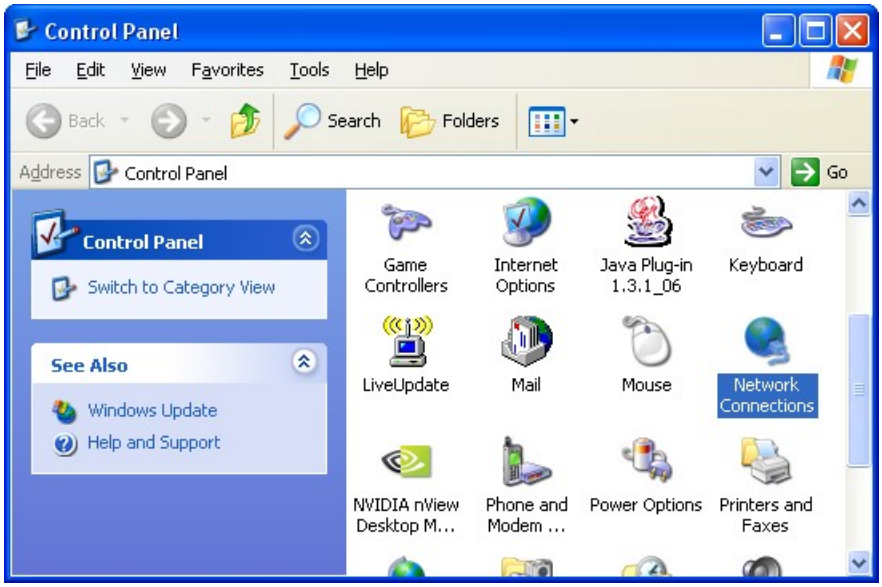
The FT5X is now installed as a modem on your PC. If you wish to use GPRS refer to section 4.3.2.4 for instructions on setting up for GPRS.

4.3.2.2 Connecting to the Internet

It is assumed that an Internet account has already been set up with a service provider. You will have been given:

- Telephone number for the dial-up connection
- Username and Password

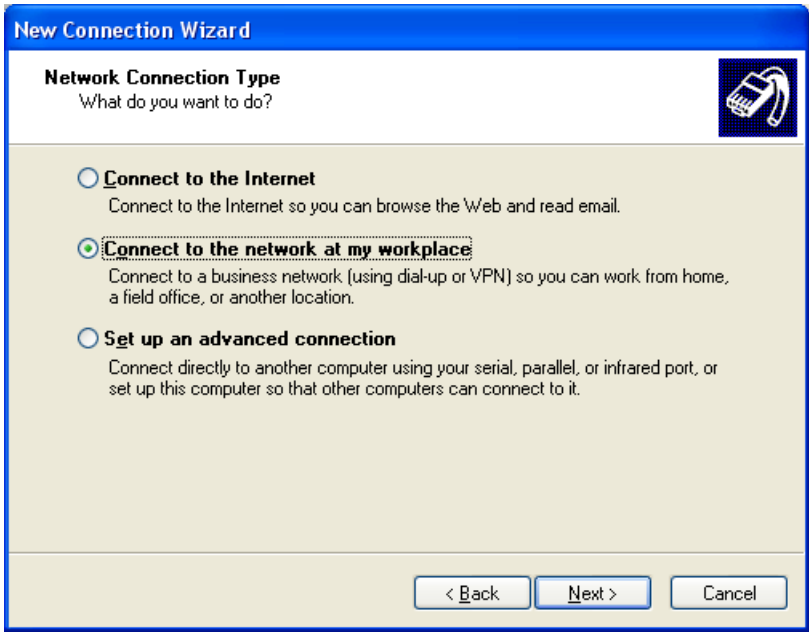
From the Start Menu, click *Control Panel*



Double click *Network Connections*

Click *Create A New Connection*

Click *Next*

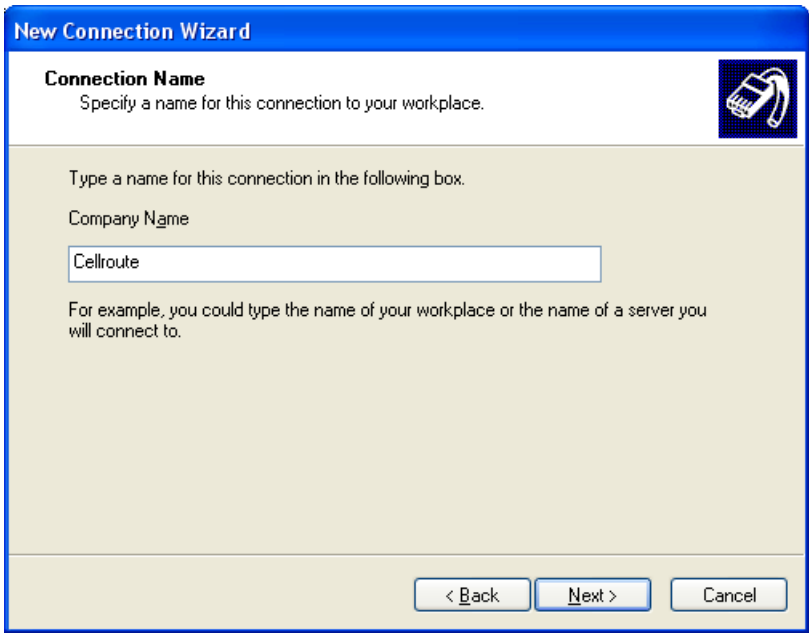

New Connection Wizard
Network Connection Type
What do you want to do?
Connect to the Internet
Connect to the Internet so you can browse the Web and read email.
Connect to the network at my workplace
Connect to a business network (using dial-up or VPN) so you can work from home, a field office, or another location.
Set up an advanced connection
Connect directly to another computer using your serial, parallel, or infrared port, or set up this computer so that other computers can connect to it.
< Back
Next >
Cancel

Select *Connect to the network at my workplace* and click *Next*

New Connection Wizard
Network Connection
How do you want to connect to the network at your workplace?
Create the following connection:
Dial-up connection
Connect using a modem and a regular phone line or an Integrated Services Digital Network (ISDN) phone line.
Virtual Private Network connection
Connect to the network using a virtual private network (VPN) connection over the Internet.
< Back
Next >
Cancel

Click *Dial-up connection* and click *Next*

Click *Next*


New Connection Wizard
Connection Name
Specify a name for this connection to your workplace.
Type a name for this connection in the following box.
Company Name
Cellroute
For example, you could type the name of your workplace or the name of a server you will connect to.
< Back
Next >
Cancel

Enter a name for the connection and click *Next*

Enter the phone number for your internet provider and click *Next*

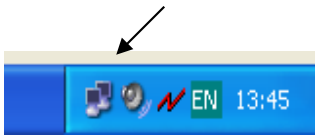
Click *Finish*

Enter the Username and Password given to you by your Internet provider and click *Dial*

The computer will then connect to your Internet provider and log you on.

4.3.2.3 Disconnecting from the Internet

When on-line there is a computer icon in the bottom right corner of the screen that flashes whenever data is being transferred.



To terminate the connection, right click on this icon and click on *Disconnect*. The FT5X will then go off line and return to voice mode after a few seconds.

4.3.2.4 Setting up GPRS

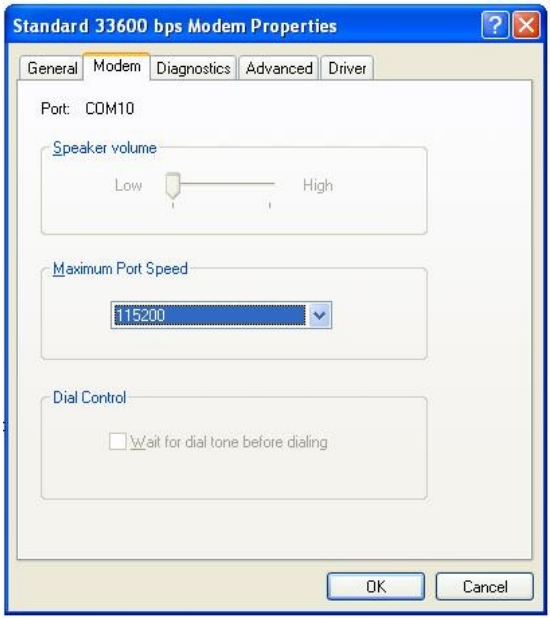
The following are additional steps that need to be carried out in order to use the FT5X unit with GPRS.

To connect to the internet via GPRS the FT5X requires a GPRS enabled SIM Card and the following information must be provided by the Network Operator:

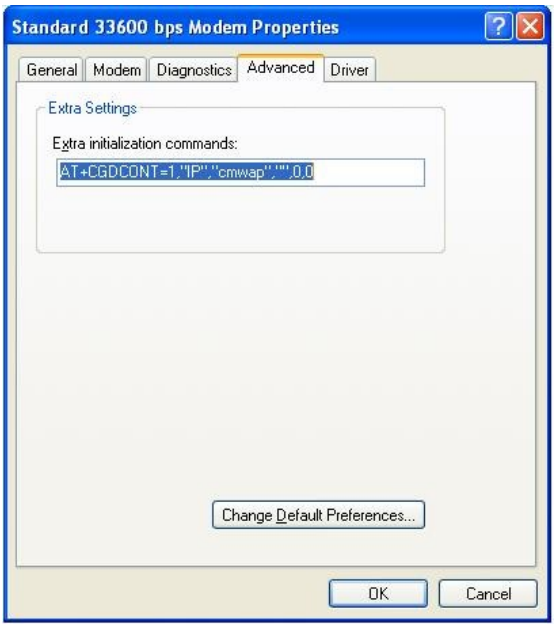
- Access Point Name (APN)
- Username
- Password

Increase port speed and add Advanced Settings:

Click *Start, Settings, Control Panel*
Double-click *Phone and Modem Options*
Click on the *Standard 33600 bps Modem* and click *Properties*



Change the *Maximum Port Speed* setting to **115200**
Click on the *Advanced* tab



Under Extra initialisation commands enter the following text exactly as it appears here:

AT+CGDCONT=1,”IP”,”**APN**”

Where **APN** is the access point name provided by the Network operator.

Click *OK* to confirm the settings

Click *OK* to exit the Phone and Modem options screen.

Configure connection:

Refer to the section 4.3.2 Connecting to the Internet for instructions on setting up an internet connection. Right-click the connection and choose *Properties.* Click *Configure* and change the modems Maximum Speed to 115200bps. Click *OK.*

When prompted for a Username and Password enter the Username and Password provided by the Network Operator. When prompted for a phone number use the following number for a GPRS connection exactly as it appears here:

991#**

4.4 Telephone Keypad Configuration Commands

User may enter commands by using telephone keypad of a telephone connected to the Phone socket on the back panel of the unit as follows:

1. Lift Receiver
2. Enter Command – a confirmation tone will then be heard
3. Replace Receiver

4.4.1 System Configuration

1. Set work mode
   Command：#*1*working mode#
   Description：Set the work mode of terminal，Working mode = 0 is voice mode；1is voice/fax mode；2 is PBX relay mode；3 is PBX extension access mode

2. Set dial mode
   command：#*333*n#
   Description：set the terminal dialing mode, n=0 is audio dial mode; n=1 is pulse dial mode.

3. Set system date
   Command：#*20*y*m*d#
   Description：Set the system date, y means（00～99）；m means month（0～12）；d means day（0～31）

4. Set system time
   Command：#*21*h*m*s#
   Description：Set the system time of the device, h means hour（0～24）；m means minute（0～59）；s means second（0～59）.

5. Set auto-dialing delay
   Command：#*3*seconds#
   Description：Set up dialing overtime and auto sending-out time upon completely entry of numbers, default setting 3 seconds.
   <seconds>　　Set point range 1-20 sec

6. Set external line flash key delay
   Command：#*4*<flashDelay>#
   Description：Set external line flash key delay, default, 700ms delay
   <delay>　　0~2000 ms

7. Set GSM output voice volume
   Command：#*53*volume#
   Description：Set GSM output voice volume，volume （0～4）.

8. Set overtime of Button R
   Command：#*85*n#
   Description：Set overtime of Button R, This feature is only available in the SIM card used by the open call waiting function effectively. Default, 2 seconds
   <n>　1~5 seconds

9. Set FAX and Voice Ring both
   Command：#*68*n#
   Description：Set FAX and Voice Ring both，when n is 0 means off， and 1 means o. This function is NO effective on the hardware board version 2.0.

10. Minute Prompt
    Command：#*110*n#
    Description：n=1，the device will send a prompt tone per one minute during user's conversation. n=0，Off this function.

4.4.2 Fax mode configuration

1. Set fax receive mode
   Command：#*63*n#
   Description：n=0 fax receiving mode is Synchronization; n=1 fax receiving mode is Asynchronous. Default n=0.

2. Set fax send mode
   Command：#*64*n#
   Description：n=0 fax sending mode is Synchronization; n=1 fax sending mode is Asynchronous. Default n=0.

4.4.3 Call Diverts

1. Set the divert number from FXO to GSM
   Command ：#*71*Number#
   Description：Set the divert number from FXO to GSM，Number is the number which dialed from GSM port.

2. Set the appointed incoming call number by FXO
   Command：#*72*number#
   Description：Set the appointed incoming call number by FXO. When the incoming call number is the appointed number on FXO port the device will looks this incoming call as special call.

3. Clear the incoming call number appointed by FXO
   Command：#*73#
   Description: Clear the appointed incoming call that has been set.

4. Set no answer delay for FXO
   Command：#*74*time#
   Description：Set no answer delay time for FXO

5. Set the FXO call diversion type
   Command：#*75*n#
   Description：Set the FXO call diversion type (0=divert always；1=divert when no answer; 2=do not divert)

6. Set the call divert switch from GSM to FXO
   Command：#*76*n#
   Description：Set the call divert switch from GSM to FXO(0=no from FXO ； 1=from FXO)

7. Set the call divert number from GSM to FXO
   Command：#*77*number#
   Description： Set the call diverts number from GSM to FXO. When the function of call diversion from GSM to FXO is on, GSM dial this Number from FXO port.

4.4.4 Detect the caller ID identification function standard

1. Detect the standard of supporting caller ID identification
   Command：#*99#
   Description: Detect the standard of supporting caller ID identification. After completing this command, the user should hang up the phone immediately. If the standard of displaying caller ID identification is complied with local standard, then the user's CLI display will show "0123456789". If the device can not display this character string, the user will need to change the current standard of caller ID identification by command "#*81*n#".

2. Set the device to support the three different standards of caller ID identification
   Command：#*81*n#
   Description: Set the device to support the three different standards of caller ID identification.
   (0=Off；1= ETSI DTMF；2= ETSI V.23；3= Bellcore)（Default value is 3）

3. Set keyboard command for transmitting caller ID during calling
   Command：#*82*n#
   Description: Set keyboard command for whether or no transmitting caller ID during calling (0=No transmit；1= Transmit).

4.4.5 Set Serial port Mode

1. Set serial port mode
   Command：#*83*n#
   Description： Set serial port mode (0=Off；1=CLI； 2=MODEM).

4.4.6 SIM Card settings

1. Input PIN code
   Command：#*86*n#
   Description: Input PIN code，n is the PIN code which input by user

2. Modify PIN code
   Command：#*88*oldpin*new*newV#
   Description: Modify PIN code. The "Oldpin" is old PIN code，the "New" is new PIN code，the "NewV" is confirm new PIN code.

3. Input PUK code
   Command：#*89*PUK*PIN#
   Description: Input PUK code，PUK is input by user，PIN is new PIN code input by user

4. Set PIN code function
   Command：#*90*n*pin#
   Description: Set PIN code function (n=0 Disable PIN function；n=1 Enable PIN function)

4.4.7 **Hotline call number**

1. Set the hotline call number
   Command：#*65*hotlineNumber#
   Description：Set the hotline call number ， hotlineNumber is the hotline call number.

2. Set the hotline dialing time
   Command：#*66*seconds#
   Description：Set the time from picking up to auto-sending the hotline number by the device. Seconds（0～10）is the time that defined by user. It indicates that the user do not dial the number after picking up, the device will dial the hotline number after Seconds automatically. If Second is 0, that indicate the hotline dialing function has been off.

4.4.8 **Emergency call number**

1. Set the emergency call number
   Command：#*67*n#
   Description: set the emergency call number, the number could be sent out without SIM card. No more than 12 numbers.

2. Set the function of number 112
   Command：#*672*n#
   Description：n=1, the all emergency call numbers have been set will be instead by 112; n=0 do not instead by 112.

3. Delete the emergency call number
   Command：#*670#
   Description：delete all the emergency call number that have been set.

4.4.9 GSM network configuration

The following command code is in the keyboard commands:

Command code	Function
*	Activate
**	Register and activate
*#	Status check
#	Unable
##	Unregistered and unable
DN	Dialing number
PW	Password

1. GSM divert always
   Command：(*|#|*#|**|##) 21*DN*BS#
   Description：GSM divert always

2. GSM divert on busy
   Command：(*|#|*#|**|##) 67*DN*BS#
   Description：GSM divert on busy

3. GSM divert on No Reply
   Command：(*|#|*#|**|##) 61*DN*BS#
   Description：GSM divert when no reply

4. GSM divert No Signal
   Command：(*|#|*#|**|##) 62*DN*BS#
   Description：GSM divert if there is no signal in service area

5. GSM divert all calls
   Command：(*|#|*#|**|##) 002*DN*BS#
   Description：GSM diverting all calls

6. GSM diverting All Terms
   Command：(*|#|*#|**|##) 004*DN*BS#
   Description：GSM diverting call under all terms

7. GSM outgoing call limiting
   Command：(*|#|*#) 33*PW*BS#
   Description：GSM outgoing calls are limiting

8. GSM international call restriction
   Command：(*|#|*#) 331*PW*BS#
   Description：GSM restrict the outgoing international call

9. GSM international call restriction except the homeland
   Command：(*|#|*#) 332*PW*BS#
   Description：GSM restrict all the international call except the homeland

10. GSM all incoming call restriction
    Command：(*|#|*#) 35*PW*BS#

Description：GSM restrict all the incoming call

11. GSM all incoming call restriction roam
    Command：(*|#|*#) 351*PW*BS#
    Description：GSM restrict all incoming call during roaming

12. GSM enable/disable call waiting
    Command：(*, #, *#43#)
    Description：GSM enable/disable call waiting function

4. Frequently Asked Questions

Q: how long do I wait till I am able to make a phone call or a fax?
A: switch on power, when the Status indicator turns dark and the Network indicator lights continuously. The system goes into normal. network registration succeed.

Q: What will happen if I make a wrong connection to Telephone socket and PSTN socket?
A: No mistake is allowed for connections of Telephone socket (connecting telephone) and External line socket (TRUNK). Wrong connection may cause system failure and may cause permanent damage to the unit.

Q: Why does the device always send the FAX as a voice outgoing call?
A: Some outdated FAX cannot send the identification tone, the user must add the "*01*" before the number to prompt the system this call is FAX call (Such as *01*Number).

Q: Why does the device always make the voice outgoing call when user makes the data call?
A: Some outdated Modem cannot send the CNG identification tone, so the user should add the "*02*" before the number to prompt the system this call is Data call (Such as *020*Number).

Q: Is it possible to transmit fax via GSM by any SIM card?
A: Before using GSM fax function, the user makes sure that:
(a) For sending faxes, ensure SIM card data transmission service is available (GSM network support is required)
(b) For receiving, ensure SIM card fax receiving service is available. (GSM network support is required; usually this function needs dual number with one SIM card – one voice number and one fax number. For fax receiving, only fax number is used. Voice number is not expected for fax receiving.)

Q: What type of fax machine do I need to use?
A: FT5X is in line with G3 fax criteria. Any compatible G3 standard fax machine is OK.

Q: When I use GSM fax, is it possible to fax like desktop fax machine, i.e. make a phone call before sending faxes?
A: Not possible. FT5X does not support GSM voice/ fax switch over function. This function requires GSM/GPRS network supporting TS61 (allowing user to make phone call while faxing). So, when sending faxes, please press down Start key immediately after complete your number; when receive faxes, please set fax machine to Auto receive mode.

WARRANTY

Dear User:

Thank you for choosing the fixed wireless terminal of our company. In order for you to enjoy our complete service, please read the following warranty conditions carefully.

Product warranty conditions:

- From the date you purchased this product, unless otherwise damaged by intention, we offer one (1) year free of charge warranty. Warranty starts from the date of purchase, which is indicated on invoice. In case of no such invoice available, warranty starts from production date.
- Within 15 days from purchasing, if not intentionally damaged, the product could be claimed for a change with Warranty card or Invoice.
- If the product is defective, user must bring with the product to the distributor or dealer by himself or herself to make a change or repair, or go to the local customer service center to make a change or repair.

Warranty Notes:

- Warranty is subject to normal operation of the product. Any man-made /intentional damage (including but not limited to: user self demounting or assembling, refit, repair, dropping and operation not as per user guide etc.) is not liable to the warranty service.
- The product warranty card is not valid without completely filling out and distributor's stamping.
- Do not damage or modify the production date label. Or we are not responsible for relevant service.
- Our company has the final authority for explanation of the product service terms.

Warranty Card

User is required to fill out the form carefully and keep it in a safe place, for future repair claim.

Customer Name		**Tel:**	
Product Type		**Device No.**	
Dealer		**Purchase Date**	**___(Y)__(M)___(D)** （Seal of Distributor/Dealer）